

09/506,246

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(FILE 'HOME' ENTERED AT 09:43:24 ON 06 SEP 2005)

FILE 'MEDLINE, HCAPLUS, BIOSIS, EMBASE, USPATFULL' ENTERED AT 09:44:13 ON 06 SEP 2005

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L1      5012 SEA HYPOTHALAMI?(L) INHIBITOR?(L) FACTOR?
          D KWIC 25-27
L2      254 SEA HYPOTHALAMI?(3A) INHIBITOR?(3A) FACTOR?
          D KWIC 25-27
          D KWIC 29-32
L3      3 SEA DIAFILTRAT? AND SOLID(2A) PHAS?(2A) EXTRACT? AND IMMUNOAFFI
          NIT?(3A) CHROMATOGRAPH?
L4      1 SEA L2 AND L3
          D L4 ABS CBIB KWIC 1
L5      56808 SEA (DIAFILTRAT? OR SOLID(2A) PHAS?(2A) EXTRACT? OR IMMUNOAFFIN
          IT?(3A) CHROMATOGRAPH?)
L6      7 SEA L2 AND L5
L7      5 DUP REM L6 (2 DUPLICATES REMOVED)
          D L7 ABS CBIB KWIC 1-5
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FILE HOME

FILE MEDLINE

FILE LAST UPDATED: 3 SEP 2005 (20050903/UP). FILE COVERS 1950 TO DATE.

On December 19, 2004, the 2005 MeSH terms were loaded.

The MEDLINE reload for 2005 is now available. For details enter HELP RLOAD at an arrow prompt (=>). See also:

<http://www.nlm.nih.gov/mesh/>
http://www.nlm.nih.gov/pubs/techbull/nd04/nd04_mesh.html

OLDMEDLINE now back to 1950.

MEDLINE thesauri in the /CN, /CT, and /MN fields incorporate the MeSH 2005 vocabulary.

This file contains CAS Registry Numbers for easy and accurate substance identification.

FILE HCAPLUS

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FILE COVERS 1907 - 6 Sep 2005 VOL 143 ISS 11
FILE LAST UPDATED: 5 Sep 2005 (20050905/ED)

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New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

FILE BIOSIS

FILE COVERS 1969 TO DATE.

CAS REGISTRY NUMBERS AND CHEMICAL NAMES (CNs) PRESENT
FROM JANUARY 1969 TO DATE.

RECORDS LAST ADDED: 31 August 2005 (20050831/ED)

FILE RELOADED: 19 October 2003.

FILE EMBASE

FILE COVERS 1974 TO 1 Sep 2005 (20050901/ED)

EMBASE has been reloaded. Enter HELP RLOAD for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

FILE USPATFULL

FILE COVERS 1971 TO PATENT PUBLICATION DATE: 1 Sep 2005 (20050901/PD)

FILE LAST UPDATED: 1 Sep 2005 (20050901/ED)

HIGHEST GRANTED PATENT NUMBER: US6938271

HIGHEST APPLICATION PUBLICATION NUMBER: US2005193458

CA INDEXING IS CURRENT THROUGH 1 Sep 2005 (20050901/UPCA)

ISSUE CLASS FIELDS (/INCL) CURRENT THROUGH: 1 Sep 2005 (20050901/PD)

REVISED CLASS FIELDS (/NCL) LAST RELOADED: Jun 2005

USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Jun 2005

>>> USPAT2 is now available. USPATFULL contains full text of the <<<
>>> original, i.e., the earliest published granted patents or <<<
>>> applications. USPAT2 contains full text of the latest US <<<
>>> publications, starting in 2001, for the inventions covered in <<<
>>> USPATFULL. A USPATFULL record contains not only the original <<<
>>> published document but also a list of any subsequent <<<
>>> publications. The publication number, patent kind code, and <<<
>>> publication date for all the US publications for an invention <<<
>>> are displayed in the PI (Patent Information) field of USPATFULL <<<
>>> records and may be searched in standard search fields, e.g., /PN, <<<
>>> /PK, etc. <<<

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>>> through the new cluster USPATALL. Type FILE USPATALL to <<<
>>> enter this cluster. <<<
>>> <<<
>>> Use USPATALL when searching terms such as patent assignees, <<<
>>> classifications, or claims, that may potentially change from <<<
>>> the earliest to the latest publication. <<<

This file contains CAS Registry Numbers for easy and accurate substance identification.

=>

non-specific, non-lipidic, Na⁺,K⁺-ATPase **inhibitory factor** from bovine **hypothalamic** and pituitary tissues. In the final purification step we obtain, from both tissues, a single, homogeneous peak, with a maximal. . .

=> s diafiltrat? and solid(2a)phas?(2a)extract? and immunoaffinit?(3a)chromatograph?
 L3 3 DIAFILTRAT? AND SOLID(2A) PHAS?(2A) EXTRACT? AND IMMUNOAFFINIT?(
 3A) CHROMATOGRAPH?

=> d his

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 06 SEP 2005

L1 5012 S HYPOTHALAMI?(L) INHIBITOR?(L) FACTOR?
 L2 254 S HYPOTHALAMI?(3A) INHIBITOR?(3A) FACTOR?
 L3 3 S DIAFILTRAT? AND SOLID(2A) PHAS?(2A) EXTRACT? AND IMMUNOAFFINIT?

=> s l2 and l3

L4 1 L2 AND L3

=> d l4 abs cbib kwic 1

L4 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2005 ACS on STN

AB The present invention relates to a method of isolating and/or purifying **hypothalamic inhibitory factor** (HIF) from a sample (e.g., tissue fluid) containing HIF. The present invention provides for isolation of large amts. of HIF using **diafiltration**, solid phase extraction and immunoaffinity techniques. In one embodiment, the invention relates to a method of purifying **hypothalamic inhibitory factor** from a sample containing **hypothalamic inhibitory factor** comprising subjecting the sample to **diafiltration**, solid phase extraction and immunoaffinity chromatog. In a particular embodiment, the invention relates to subjecting the sample to **diafiltration** to produce a **diafiltrate** of HIF; subjecting the **diafiltrate** to a first solid phase extraction (SPE) to produce a first fraction of HIF; subjecting the first fraction to immunoaffinity chromatog., wherein an antibody which binds to HIF is coupled to an immunoaffinity column, to produce a second fraction of HIF; subjecting the second fraction of HIF to reverse phase HPLC chromatog. to produce a third fraction of HIF; and recovering purified HIF from the third fraction.

1998:795027 Document Number 130:33496 Large-scale isolation and purification of HIF. Gallagher, Rex T.; Hauptert, Garner T., Jr. (Bion, Inc., USA; General Hospital Corporation). PCT Int. Appl. WO 9854195 A1 19981203, 35 pp. *not prior art*
 DESIGNATED STATES: W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG. (English). CODEN: PIXXD2. APPLICATION: WO 1998-US10888 19980528. PRIORITY: US 1997-866706 19970530.

AB The present invention relates to a method of isolating and/or purifying **hypothalamic inhibitory factor** (HIF) from a sample (e.g., tissue fluid) containing HIF. The present invention provides for isolation of large amts. of HIF using **diafiltration**, solid

phase extraction and immunoaffinity techniques. In one embodiment, the invention relates to a method of purifying **hypothalamic inhibitory factor** from a sample containing **hypothalamic inhibitory factor** comprising subjecting the sample to **diafiltration**, solid phase extraction and immunoaffinity chromatog. In a particular embodiment, the invention relates to subjecting the sample to **diafiltration** to produce a **diafiltrate** of HIF; subjecting the **diafiltrate** to a first solid phase extraction (SPE) to produce a first fraction of HIF; subjecting the first fraction to immunoaffinity. . . .

IT **Chromatography**

(**immunoaffinity**; large-scale isolation and purification of HIF)

IT **Extraction**

(**solid-phase**; large-scale isolation and purification of HIF)

IT 88814-02-2P, **Hypothalamic inhibitory factor**

RL: PUR (Purification or recovery); PREP (Preparation)

(large-scale isolation and purification of HIF)

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FILE 'HCAPLUS' ENTERED AT 09:44:13 ON 06 SEP 2005

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FILE 'USPATFULL' ENTERED AT 09:44:13 ON 06 SEP 2005

CA INDEXING COPYRIGHT (C) 2005 AMERICAN CHEMICAL SOCIETY (ACS)

=> s hypothalami?(l)inhibitor?(l)factor?

L1 5012 HYPOTHALAMI?(L) INHIBITOR?(L) FACTOR?

=> d kwic 25-27

L1 ANSWER 25 OF 5012 MEDLINE on STN

AB We recently identified a novel **hypothalamic** neuropeptide inhibiting gonadotropin release in quail and termed it gonadotropin-**inhibitory** hormone (GnIH). Cell bodies and terminals containing the dodecapeptide GnIH are localized in the paraventricular nucleus (PVN) and median eminence,. . . . Melatonin receptor autoradiography further revealed specific binding of melatonin in the PVN. These results indicate that melatonin is a key **factor** for GnIH induction. Melatonin appears to act directly on GnIH neurons through its receptor to induce GnIH expression. This is. . . .

L1 ANSWER 26 OF 5012 MEDLINE on STN

AB . . . role in the mechanisms leading to endotoxin-induced cardiovascular failure. We investigated the effect of nimesulide (NIM), a selective cyclooxygenase-2 (COX-2) **inhibitor**, on the cardiovascular alterations occurring during endotoxemia, and on prostaglandin E2 (PGE2), tumor necrosis **factor**-alpha (TNF-alpha) and interleukin-1beta (IL-1beta) levels in endotoxemic rats. NIM significantly reduced endotoxin-induced elevation of plasma and myocardial levels of TNF-alpha,. . . . of IL-1beta. Searching for the mechanism underlying the anti-TNF-alpha effect of NIM, it was found that the drug reduced nuclear **factor** kappa B activation through diminished nuclear levels of p-65 accompanied by a protective effect against the cardiovascular alterations and mortality seen during endotoxemia. In addition, the **inhibitory** effect of NIM on endotoxin-induced elevation in plasma and **hypothalamic** levels of PGE2 was noteworthy, and this may suggest that the large amounts of PGE2 observed during endotoxemia are mainly. . . .

L1 ANSWER 27 OF 5012 MEDLINE on STN

AB . . . (c) prolactin (PRL) can influence the synthesis of prostaglandins, the expression of some MMP (MMP-2, MMP-9 and decysin) and tissue **inhibitors** of MMP in general; (d) vitamin C deficiency induces the expression/activity of extracellular MMP and is considered a risk **factor** for PROM; and (e) vitamin C potentiates the dopamine-mediated inhibition of PRL in rats. The present hypothesis proposes that a decreased **hypothalamic** dopaminergic tone-and

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thus an increased synthesis/release of pituitary PRL - is induced by vitamin C deficiency below a critical threshold (<18 microg/10(8) leukocytes) and that both **factors**, in turn, would cause upregulation of the expression/activity of several MMP. The increased PRL concentrations (acting like a Th1-type cytokine). . .

=> s hypothalami?(3a)inhibitor?(3a)factor?

L2 254 HYPOTHALAMI?(3A) INHIBITOR?(3A) FACTOR?

=> d kwic 25-27

L2 ANSWER 25 OF 254 MEDLINE on STN

TI Effect of ouabain and **hypothalamic**, hypophysary **inhibitory factor** on rat mesangial cell proliferation.

AB The mitogenic effect of a low-molecular-weight, Na⁺,K⁺-ATPase inhibitory factor isolated from bovine hypothalamus and hypophysis (**hypothalamic** hypophysary **inhibitory factor**, HHIF) and ouabain on cultured rat mesangial cells was examined. Ouabain induced a potent stimulation of the [3H]thymidine incorporation to. . .

L2 ANSWER 26 OF 254 MEDLINE on STN

AB Recent reports have shown the presence of a ouabain-like inhibitor of Na⁺/K⁺-ATPase in humans. We have purified a bovine **hypothalamic** Na⁺/K⁺-ATPase **inhibitory factor** (HIF) by using affinity chromatography combined with HPLC. This inhibitor has a molecular weight of 584 as determined by ion-spray. . .

L2 ANSWER 27 OF 254 MEDLINE on STN

AB In order to check whether **hypothalamic** stimulatory or **inhibitory factors** exert any kind of modulation on the morphology of VIP-immunoreactive cells in the rat hypophysis, the transport of these towards. . .

=> d kwic 29-32

L2 ANSWER 29 OF 254 MEDLINE on STN

AB The regulation of pituitary GH has traditionally been considered to be under dual **hypothalamic** control, by **inhibitory** and stimulatory releasing **factors** (SRIF and GRF respectively). The specificity of these factors is not absolute, however, and both SRIF and GRF have been. . .

L2 ANSWER 30 OF 254 MEDLINE on STN

AB . . . results suggest that LH and PRL secretion is influenced by changes in endogenous opiates and in gonadotropin-releasing hormone and PRL **inhibitory factor** due to **hypothalamic** dysfunction.

L2 ANSWER 31 OF 254 MEDLINE on STN

AB . . . of ir-PRL and PRL mRNA in the tumor tissue may indicate that hyperprolactinemia is caused by the suppression of PRL **inhibitory factor** due to **hypothalamic** dysfunction by the tumor mass. Thus, the study of PRL gene expression and immunohistochemistry in GH-secreting adenomas is valuable to. . .

L2 ANSWER 32 OF 254 MEDLINE on STN

AB We have completely purified, in parallel, a low molecular weight,

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=> s (diafiltrat? or solid(2a)phas?(2a)extract? or immunoaffinit?(3a)chromatograph?)
L5 56808 (DIAFILTRAT? OR SOLID(2A) PHAS?(2A) EXTRACT? OR IMMUNOAFFINIT?(3
A) CHROMATOGRAPH?)

=> d his

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06 SEP 2005

L1 5012 S HYPOTHALAMI?(L) INHIBITOR?(L) FACTOR?
L2 254 S HYPOTHALAMI?(3A) INHIBITOR?(3A) FACTOR?
L3 3 S DIAFILTRAT? AND SOLID(2A) PHAS?(2A) EXTRACT? AND IMMUNOAFFINIT?
L4 1 S L2 AND L3
L5 56808 S (DIAFILTRAT? OR SOLID(2A) PHAS?(2A) EXTRACT? OR IMMUNOAFFINIT? (

=> s l2 and l5

L6 7 L2 AND L5

=> dup rem l6

PROCESSING COMPLETED FOR L6

L7 5 DUP REM L6 (2 DUPLICATES REMOVED)

=> d l7 abs cbib kwic 1-5

L7 ANSWER 1 OF 5 USPATFULL on STN

AB The invention provides a human thyroid and pituitary membrane protein
(TPMP) and polynucleotides which identify and encode TPMP. The invention
also provides expression vectors, host cells, antibodies, agonists, and
antagonists. The invention also provides methods for diagnosing,
treating or preventing disorders associated with expression of TPMP.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

2002:16898 Thyroid and pituitary membrane protein.

Lal, Preeti, Santa Clara, CA, UNITED STATES

Corley, Neil C., Mountain View, CA, UNITED STATES

Gorgone, Gina, Palo Alto, CA, UNITED STATES

Incyte Pharmaceuticals, Inc. (U.S. corporation)

US 2002009778 A1 20020124

APPLICATION: US 2001-850887 A1 20010507 (9)

DOCUMENT TYPE: Utility; APPLICATION.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

SUMM [0005] The release of anterior pituitary hormones is controlled by the
hypothalamus which secretes **hypothalamic** releasing and
inhibitory hormones (or **factors**). The hypothalamic
hormones important in controlling the anterior pituitary are
somatotropin (or growth hormone releasing hormone, GHRH),
corticotropin-releasing hormone (CRH),.. . .

DETD [0222] Naturally occurring or recombinant TPMP is substantially purified
by **immunoaffinity chromatography** using antibodies
specific for TPMP. An immunoaffinity column is constructed by covalently
coupling anti-TPMP antibody to an activated chromatographic resin, . . .

L7 ANSWER 2 OF 5 USPATFULL on STN

AB The present invention is based on the unexpected discoveries that
hypothalamic inhibitory factor (HIF) has a
positive inotropic effect in a whole organ preparation, such as an

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isolated perfused heart, and that HIF, to a greater extent than ouabain, dilates the coronary arteries in the isolated perfused heart as manifested in increased coronary flow in hearts treated with HIP. The present invention relates to a method for increasing coronary perfusion in a mammalian host comprising administering to the host in need thereof an effective amount of **hypothalamic inhibitory factor** (HIF). The invention also relates to a method for producing an increased coronary vasodilatory effect in a mammalian host comprising administering to a mammalian host in need thereof an effective amount of HIF. The method of the present invention can be used to prevent and/or treat ischemic cardiac malfunction and coronary artery restenosis.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

2001:116989 Treatment of ischemic cardiac malfunction.

Hauptert, Jr., Garner T., Littleton, MA, United States

The General Hospital Corporation, Charlestown, MA, United States (U.S. corporation)

US 6265383 B1 20010724

APPLICATION: US 1999-326953 19990607 (9)

DOCUMENT TYPE: Utility; GRANTED.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention is based on the unexpected discoveries that **hypothalamic inhibitory factor** (HIF) has a positive inotropic effect in a whole organ preparation, such as an isolated perfused heart, and that HIF, . . . for increasing coronary perfusion in a mammalian host comprising administering to the host in need thereof an effective amount of **hypothalamic inhibitory factor** (HIF). The invention also relates to a method for producing an increased coronary vasodilatory effect in a mammalian host comprising. . .

SUMM . . . and ouabain, on the other hand, are strong inotropes, but do not have vasoactive (dilatory) effects on the coronary circulation. **Hypothalamic inhibitory factor** (HIF) has also been shown to produce a positive inotropic effect on cardiac muscle cells (U.S. patent application Ser. No. . . .

SUMM . . . for increasing coronary perfusion in a mammalian host comprising administering to the host in need thereof an effective amount of **hypothalamic inhibitory factor** (HIF). The invention also relates to a method for producing an increased coronary vasodilatory effect in a mammalian host comprising. . .

SUMM The present invention is based on the unexpected discoveries that **hypothalamic inhibitory factor** (HIF) has a positive inotropic effect in a whole organ preparation, such as an isolated perfused heart, and that HIF, . . .

SUMM . . . (Tymiak, A.A., et al. Proc. Natl. Acad. Sci., USA, 90:8189-8193 (1993)). IF has also been purified to homogeneity using an **immunoaffinity chromatography** method in which an antibody which binds to HIF is coupled to the resin of an immunoaffinity column. The antibody. . .

CLM What is claimed is:
 . . . effect in a mammalian host comprising administering to a mammalian host in need thereof an effective amount of a glycosidic **hypothalamic inhibitory factor**, wherein said **factor** has been purified to homogeneity.

3. The method of claim 1 wherein the **hypothalamic inhibitory factor** is administered intravenously.

. . . or treating ischemic cardiac malfunction comprising administering to a mammalian host in need thereof an effective amount of a glycosidic **hypothalamic inhibitory factor**, wherein said **factor** has been purified to homogeneity.

7. The method of claim 4 wherein the **hypothalamic inhibitory factor** is administered intravenously.

. . . or treating coronary artery restenosis comprising administering to a mammalian host in need thereof an effective amount of a glycosidic **hypothalamic inhibitory factor**, wherein said **factor** has been purified to homogeneity.

10. The method of claim 8 wherein the **hypothalamic inhibitory factor** is administered intravenously.

. . . coronary artery in a mammalian host comprising administering to a host in need thereof an effective amount of a glycosidic **hypothalamic inhibitory factor**, wherein said **factor** has been purified to homogeneity.

14. The method of claim 11 wherein the **hypothalamic inhibitory factor** is administered intravenously.

- L7 ANSWER 3 OF 5 MEDLINE on STN DUPLICATE 1
- AB Ouabain was recently isolated from human plasma, bovine hypothalamus and bovine adrenal in attempts to identify endogenous substances inhibiting the cell membrane sodium pump. A number of radioimmunoassays have been developed in order to study the clinical significance of ouabain. The results have been controversial with regard to the presence and chemical nature of plasma ouabain-like immunoreactivity. We have now measured ouabain in healthy and pregnant individuals using **solid-phase extraction** of plasma samples followed by a new radioimmunoassay with the extraordinary sensitivity of at least 2 fmol/tube (5 pmol/l). Plasma extracts, a previously isolated human plasma ouabain-like compound and bovine **hypothalamic inhibitory factor** displaced the tracer in parallel and eluted identically with ouabain in high-performance liquid chromatography. Plasma ouabain immunoreactivity was found to be much lower than reported previously: 12.6+/-1.3 pmol/l in healthy men (mean+/-s.e., n=20) and 9.4+/-0.7 pmol/l in women (n=14). In pregnant women (n=28) plasma ouabain concentration was 16.3+/-4.0 pmol/l during the first trimester, 18.8+/-4.3 pmol/l during the second trimester and 24.3+/-4.0 pmol/l during the third trimester (all P<0.01 compared with non-pregnant women). Plasma ouabain 3-5 days after the delivery was 13.6+/-1.1 pmol/l (n=10, P<0.05-0.01 compared with second and third trimesters). The pregnancy-related changes in the plasma concentrations of ouabain resembled those of cortisol. Therefore cortisol was measured from the same plasma samples and a significant positive correlation was found (r=0.512, P=0.006). The similar profiles of plasma ouabain and cortisol during pregnancy and their rapid decreases postpartum are consistent with the adrenal cortical origin of ouabain and also show that the secretions of these hormones are possibly under the control of same factors.
2000413859. PubMed ID: 10828851. Radioimmunoassay of plasma ouabain in healthy and pregnant individuals. Vakkuri O; Arnason S S; Pouta A; Vuolteenaho O; Leppaluoto J. (Department of Physiology and Biocenter Oulu, University of Oulu, Finland.) Journal of endocrinology, (2000 Jun) 165 (3) 669-77. Journal code: 0375363. ISSN: 0022-0795. Pub. country:

ENGLAND: United Kingdom. Language: English.

AB . . . the presence and chemical nature of plasma ouabain-like immunoreactivity. We have now measured ouabain in healthy and pregnant individuals using **solid-phase extraction** of plasma samples followed by a new radioimmunoassay with the extraordinary sensitivity of at least 2 fmol/tube (5 pmol/l). Plasma extracts, a previously isolated human plasma ouabain-like compound and bovine **hypothalamic inhibitory factor** displaced the tracer in parallel and eluted identically with ouabain in high-performance liquid chromatography. Plasma ouabain immunoreactivity was found to. . .

L7 ANSWER 4 OF 5 USPATFULL on STN

AB The present invention is based on the unexpected discoveries that **hypothalamic inhibitory factor** (HIF) has a positive inotropic effect in a whole organ preparation, such as an isolated perfused heart, and that HIF, to a greater extent than ouabain, dilates the coronary arteries in the isolated perfused heart as manifested in increased coronary flow in hearts treated with HIF. The present invention relates to a method for increasing coronary perfusion in a mammalian host comprising administering to the host in need thereof an effective amount of **hypothalamic inhibitory factor** (HIF). The invention also relates to a method for producing an increased coronary vasodilatory effect in a mammalian host comprising administering to a mammalian host in need thereof an effective amount of HIF. The method of the present invention can be used to prevent and/or treat ischemic cardiac malfunction and coronary artery restenosis.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

1999:65240 Treatment of ischemic cardiac malfunction.

Hauptert, Jr., Garner T., Littleton, MA, United States

The General Hospital Corporation, Boston, MA, United States (U.S. corporation)

US 5910484 19990608

APPLICATION: US 1997-866712 19970530 (8)

DOCUMENT TYPE: Utility; Granted.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention is based on the unexpected discoveries that **hypothalamic inhibitory factor** (HIF) has a positive inotropic effect in a whole organ preparation, such as an isolated perfused heart, and that HIF, . . . for increasing coronary perfusion in a mammalian host comprising administering to the host in need thereof an effective amount of **hypothalamic inhibitory factor** (HIF). The invention also relates to a method for producing an increased coronary vasodilatory effect in a mammalian host comprising. . .

SUMM . . . and ouabain, on the other hand, are strong inotropes, but do not have vasoactive (dilatory) effects on the coronary circulation.

Hypothalamic inhibitory factor (HIF) has also been shown to produce a positive inotropic effect on cardiac muscle cells (U.S. patent application Ser. No. . . .

SUMM . . . for increasing coronary perfusion in a mammalian host comprising administering to the host in need thereof an effective amount of **hypothalamic inhibitory factor** (HIF).

The invention also relates to a method for producing an increased coronary vasodilatory effect in a mammalian host comprising. . .

DETD The present invention is based on the unexpected discoveries that **hypothalamic inhibitory factor** (HIF) has a

positive inotropic effect in a whole organ preparation, such as an isolated perfused heart, and that HIF,
 DETD A. A., et al. Proc. Natl. Acad. Sci., USA, 90:8189-8193 (1993)). HIF has also been purified to homogeneity using an **immunoaffinity chromatography** method in which an antibody which binds to HIF is coupled to the resin of an immunoaffinity column. The antibody. . . .

CLM What is claimed is:
 . . . coronary perfusion in a mammalian host comprising administering to the host in need thereof an effective amount of a glycosidic **hypothalamic inhibitory factor** wherein said **factor** has been purified to homogeneity.

3. The method of claim 1 wherein the **hypothalamic inhibitory factor** is administered intravenously.

L7 ANSWER 5 OF 5 HCAPLUS COPYRIGHT 2005 ACS on STN

AB The present invention relates to a method of isolating and/or purifying **hypothalamic inhibitory factor** (HIF) from a sample (e.g., tissue fluid) containing HIF. The present invention provides for isolation of large amts. of HIF using **diafiltration**, solid phase extraction and immunoaffinity techniques. In one embodiment, the invention relates to a method of purifying **hypothalamic inhibitory factor** from a sample containing **hypothalamic inhibitory factor** comprising subjecting the sample to **diafiltration**, solid phase extraction and immunoaffinity chromatog. In a particular embodiment, the invention relates to subjecting the sample to **diafiltration** to produce a **diafiltrate** of HIF; subjecting the **diafiltrate** to a first solid phase extraction (SPE) to produce a first fraction of HIF; subjecting the first fraction to immunoaffinity chromatog., wherein an antibody which binds to HIF is coupled to an immunoaffinity column, to produce a second fraction of HIF; subjecting the second fraction of HIF to reverse phase HPLC chromatog. to produce a third fraction of HIF; and recovering purified HIF from the third fraction.

1998:795027 Document Number 130:33496 Large-scale isolation and purification of HIF. Gallagher, Rex T.; Hauptert, Garner T., Jr. (Bion, Inc., USA; General Hospital Corporation). PCT Int. Appl. WO 9854195 A1 19981203, 35 pp.
 DESIGNATED STATES: W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG. (English). CODEN: PIXXD2. APPLICATION: WO 1998-US10888 19980528. PRIORITY: US 1997-866706 19970530.

AB The present invention relates to a method of isolating and/or purifying **hypothalamic inhibitory factor** (HIF) from a sample (e.g., tissue fluid) containing HIF. The present invention provides for isolation of large amts. of HIF using **diafiltration**, solid phase extraction and immunoaffinity techniques. In one embodiment, the invention relates to a method of purifying **hypothalamic inhibitory factor** from a sample containing **hypothalamic inhibitory factor** comprising subjecting the sample to **diafiltration**, solid phase extraction and immunoaffinity chromatog. In a particular embodiment, the invention relates to subjecting the sample to **diafiltration** to produce a **diafiltrate** of HIF; subjecting the **diafiltrate** to a

not prior art

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first solid phase extraction (SPE) to produce a first fraction of HIF;
subjecting the first fraction to immunoaffinity. . . .

IT **Chromatography**

(immunoaffinity; large-scale isolation and purification of HIF)

IT **Extraction**

(solid-phase; large-scale isolation and purification of
HIF)

IT 88814-02-2P, **Hypothalamic inhibitory factor**

RL: PUR (Purification or recovery); PREP (Preparation)

(large-scale isolation and purification of HIF)

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